

# Middlesex University Research Repository

An open access repository of

Middlesex University research

<http://eprints.mdx.ac.uk>

Ball, David J. ORCID logoORCID: <https://orcid.org/0000-0003-1681-3455>, Brussoni, Mariana, Gill, Tim R., Harbottle, Harry and Spiegel, Bernard (2019) Avoiding a dystopian future for children's play. International Journal of Play, 8 (1) . pp. 3-10. ISSN 2159-4937 [Article] (doi:10.1080/21594937.2019.1582844)

Final accepted version (with author's formatting)

This version is available at: <https://eprints.mdx.ac.uk/28708/>

## Copyright:

Middlesex University Research Repository makes the University's research available electronically.

Copyright and moral rights to this work are retained by the author and/or other copyright owners unless otherwise stated. The work is supplied on the understanding that any use for commercial gain is strictly forbidden. A copy may be downloaded for personal, non-commercial, research or study without prior permission and without charge.

Works, including theses and research projects, may not be reproduced in any format or medium, or extensive quotations taken from them, or their content changed in any way, without first obtaining permission in writing from the copyright holder(s). They may not be sold or exploited commercially in any format or medium without the prior written permission of the copyright holder(s).

Full bibliographic details must be given when referring to, or quoting from full items including the author's name, the title of the work, publication details where relevant (place, publisher, date), pagination, and for theses or dissertations the awarding institution, the degree type awarded, and the date of the award.

If you believe that any material held in the repository infringes copyright law, please contact the Repository Team at Middlesex University via the following email address:

[eprints@mdx.ac.uk](mailto:eprints@mdx.ac.uk)

The item will be removed from the repository while any claim is being investigated.

See also repository copyright: re-use policy: <http://eprints.mdx.ac.uk/policies.html#copy>

# Avoiding a dystopian future for children's play

David J. Ball,<sup>1</sup> Mariana Brussoni,<sup>2</sup> Tim R. Gill,<sup>3</sup> Harry Harbottle<sup>4</sup> and Bernard Spiegel<sup>5</sup>

<sup>1</sup>Centre for Decision Analysis and Risk Management, School of Science and Technology, Middlesex University, London NW5 4BT

<sup>2</sup>Department of Pediatrics, University of British Columbia, BC Injury Research and Prevention Unit, Room F511, 4480 Oak Street, Vancouver, BC, V6H 3V4 Canada;

<sup>3</sup> Rethinkingchildhood, London, England

<sup>4</sup> CATE Consultancy, Portpatrick, Scotland

<sup>5</sup> Director, PLAYLINK, London, England

## **Avoiding a dystopian future for children's play**

In Aldous Huxley's famous novel, 'Brave New World,' he described a dystopian society in which the state had curbed all simple leisure pursuits in favour of absurdly complicated and expensive sports such as 'electromagnetic golf' in order to generate "meaningful" activity – defined as activity having the maximum economic payoff. In our view, children's play, of all things, is in danger of going down a parallel road, wherein "meaningful" activity is risk-free, highly controlled and evermore costly. A pervading culture of fear has also permeated the general ethos resulting in risk intolerance and ill-conceived and hopeless attempts to remove all danger from children's lives (Gill, 2007; Green, 1999; Lupton, 1993). The incremental change that creeps up over decades can cause a generational amnesia to set in whereby previously enjoyed freedoms and desired goals lapse into distant memories. Moreover, because of globalisation, the problem is also global. Our aim is to provide a call to action. We draw attention to the challenges, particularly related to the development and implementation of playground safety standards, one of the key inhibitors to creating imaginative and stimulating play environments, acknowledge some encouraging changes, and provide recommendations for action to the various actors with a stake in children's play.

By now, the evidence is mounting on the important contribution of outdoor play to children's wellbeing and also the need to reconnect with nature. Moreover, interest in outdoor play has moved well beyond education and outdoor learning to consider broader impacts, including mental and physical health, physical activity, development, and even the gut microbiome and myopia (Brussoni et al., 2015; Burdette & Whitaker, 2005; Finlay & Arrieta, 2016; Gray et al., 2015; McCurdy, Winterbottom, Mehta, & Roberts, 2010; Sherwin et al., 2012; van den Bosch & Bird, 2018; Whitebread, 2017).

However, play is being channelled by powerful forces which shape what is permissible without necessarily understanding and perhaps not even being aware of what is at stake. A prominent driver of play opportunities – or lack thereof – has been the proliferate use of risk assessment. With roots in occupational health and safety (OHS), it has primarily focused on injury prevention, while largely neglecting health. The general approach taken in OHS is to identify and eliminate hazards or, if that is not possible, to manage them by using engineering-style controls such as hard hats, hi-vis safety gear, physical barriers, and safety surfacing. While this approach has reduced injuries in some circumstances such as road safety, even there one finds counter-cultures which advocate more reliance on people to manage these risks, e.g. the shared space concept (Dekker, 2015, p. 266). The notion that some exposure to a non-standardised world containing hazards, such as those present in play and in nature, could be beneficial, is alien to the engineering worldview.

Playground safety standards and the management systems which travel with them have also become a part of the problem (Spiegel, Gill, Harbottle, & Ball, 2014). Apart from the fact that the primary purpose of these standards is to provide a level playing field for equipment manufacturers as a means of promoting international trade (e.g., Canadian Standards

Association, 2016), they inhabit a world predicated upon the idea that play is about goods in the form of engineered structures. The bodies that create standards, such as the Canadian Standards Association, the American Society for Testing and Materials or the Comité Européen de Normalisation, are not affiliated with governments, but are organizations whose primary interest is economic, rather than child development, health or wellbeing. This is reflected in the typical make-up of standards committees which tend to be dominated by industry with scant representation from other interested parties, such as early childhood educators, designers and researchers. This, however, has not restrained standard committees from promulgating stipulations that make assumptions about children and adolescents' ability to judge risks arising out of their own choices, for example, about the height they feel able and wish to climb. Thus, standard-setting committees are characterised by 'absent voices' (Graham & Wiener, 1995) – the absence of those having direct knowledge and sustained experience of children and teenagers at play. This essentially structural fault in play equipment standard-making is sustained and exacerbated by the fact that representation on committees is self-funded, encouraging the representation of those with deep pockets and vested interests (Herrington & Nicholls, 2007). It is hardly surprising then that play equipment catalogues are all so similar.

Encounters with some engineered structures described in standards can offer valuable experiences and can add to children's enjoyment of play facilities. It is beyond question that such structures should be strong and durable enough to withstand foreseeable use, and designed without hidden hazards such as head traps. Questions about structural integrity and the absence of serious design flaws in engineered equipment are the proper domain of standards; this domain being distinct from judgments about children and adolescents' play behaviours and needs. Such behaviours are shaped by local circumstances and by the children using the play space, and are not entirely predictable. They are therefore not susceptible to standardisation and should lay outside the scope of standard-making committees.

The current regime of standards, equipment procurement and inspections constantly reinforces the message that equipment is what play is about. Where then, as many have lamented, "is the mud, sand and water of yesteryear?" It's a good question deserving of an answer, but there is no simple answer - no obvious 'conspiracy' - just a gathering of numerous actors who play out their professional roles without much apparent awareness of the wider consequences.

Standards, as written, generate a claustrophobic idea of play which is self-reinforcing at numerous levels. Typically a play provider, an educational body or a local authority, will reach for an equipment catalogue if they wish to provide a play opportunity. Because time is short they will prefer to buy off-the-shelf items. Secondly, they, or their procurement agency, will likely demand that any item should comply with the relevant standard. The reasons for this are a reductive understanding of play combined with risk aversion, which could mean either aversion to childhood injuries or, more often, aversion to the possibility of legal liability when an injury occurs. This is because of a presumption that standards compliance means either no injuries, or that it means immunity from prosecution (Jost, Yost, & Mikus, 2016). The fact is, however, that while standards compliance is no guarantee of safety from injury, the way most

legal systems work is to use standards compliance as a proxy for having done the requisite risk assessment and thereby having satisfied one's duty of care. The irony is that standards are not obviously, if at all, based on risk assessment but on some other kind of unspecified judgmental process which, as described above, is influenced by forces which can have little to do with providing high quality children's play opportunities.

Furthermore, overuse of standards leads to standardised play spaces. This is also a constraint when trying to make play provision for children with additional support needs where more complex play offers need to be considered. As recent guidelines regarding developing inclusive play spaces state, "It is important that there are diverse community spaces in local areas which can accommodate children's play needs in different ways." (Casey & Harbottle, 2018, p. 5)

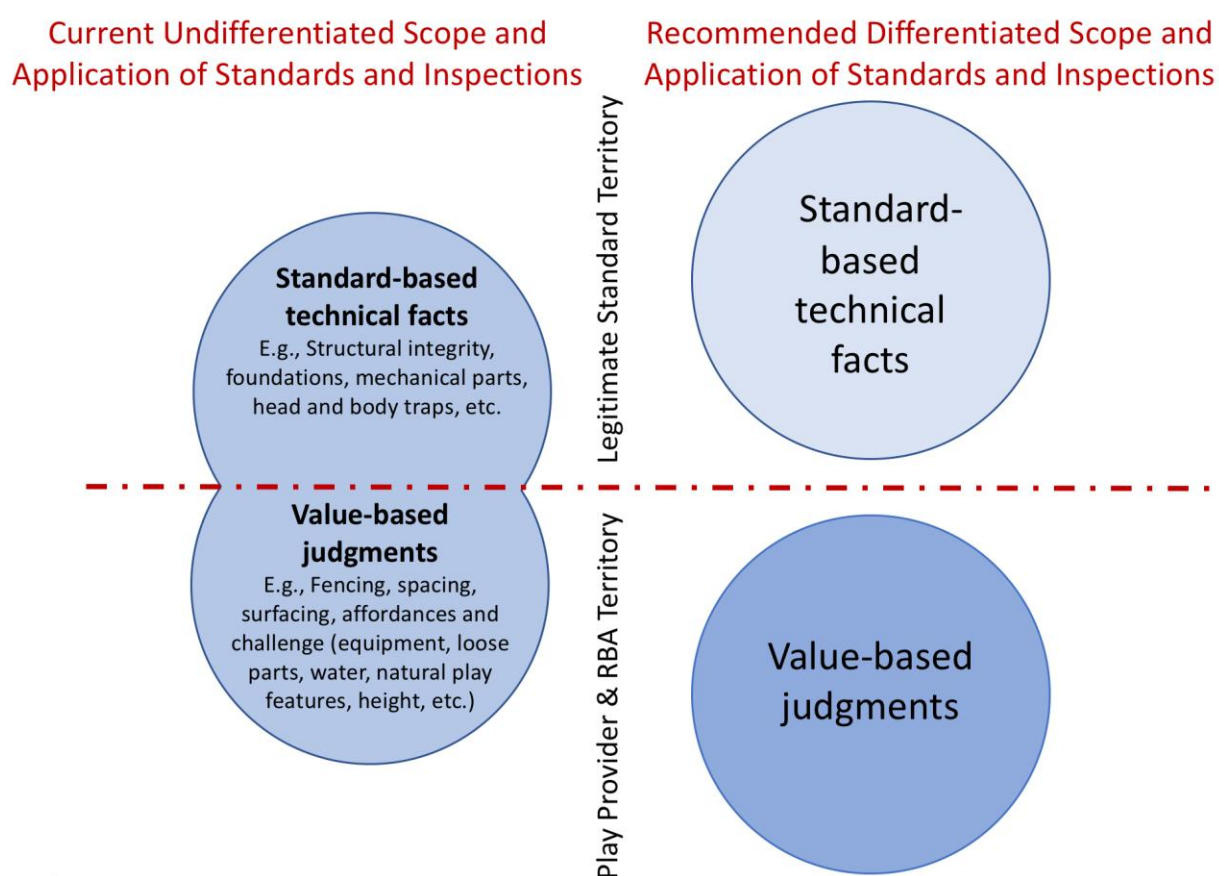
There is also a disconnect between the decisions about the content of standards, the evidence base, and the wider public good. The cost of compliance can lead to poor allocation of limited public resources. For example, impact absorbing surfacing (IAS) roughly doubles the cost of conventional playgrounds, yet its appropriateness has long been questioned because it may not be an appropriate control measure in general circumstances, nor as safe as expected (Ball, 2004; Ball, 2002; Davidson et al., 2013; King & Ball, 1989). Furthermore, in many countries, other leisure activities, such as sports, are responsible for far more injuries than playgrounds, and the health burden from environmental hazards including traffic, pollution and poor housing and sanitation, is even greater (Gill, 2018). To allow the allocation of limited public funds to be strongly influenced by changes to standards that take no account of comparative risk – at a time of static or shrinking public spending in many countries around the world – is simply poor decision-making. Consider, for example, that residential traffic calming is ten times as cost-effective as IAS, and the priority for public spending should be clear (Gill, 2007).

The alignment of standards setting bodies with playground inspection agencies has further reinforced the grip of standards on play. Many playground inspectors share a similar professional background to manufacturers, and lack training to assess the risks or benefits of play, solely being able to examine equipment for compliance with the respective standard. If they find some non-compliance, this 'deviation' will typically be risk assessed, but what that means in terms of risk to children is impossible to identify. How do you risk assess a deviation from a requirement that is based on some unspecified judgmental process?

A further problem is that the 'standards first' view which is spread by many inspectors finds it difficult to cope with alternative forms of play, for example, loose parts play or play in natural settings. How can you assess a pile of crates, a tree or a ditch against a standard written for manufactured objects? Because this is impossible, you have to turn to risk assessment or, preferably, risk benefit assessment (RBA): a risk management tool that brings together considerations about both risks and benefits in a single process (Ball, Gill, & Spiegel, 2012). This is outside the remit – and perhaps even the worldview – of most inspectors, so the tendency is to try to shoehorn the pile of logs, for example, into the quasi-engineered world of standards. Two major issues are raised by this situation: first, the overstepping of the standards' remit; and second, who is qualified to undertake play space risk (benefit) assessments? As indicated,

standards have a legitimate and necessary role in assuring important things like the structural integrity of play equipment. But their role ends there, as seen in Figure 1. As does the role of play equipment inspectors, whose remit should properly be confined to assessing equipment against the structural elements of the standard (despite the worrying trend to expect them, unrealistically, to develop child development expertise in response to RBA). Risk assessment in general, and risk benefit assessment in particular, which to a significant extent is focused on children and adolescents' potential and actual behaviours, should be firmly in the hands of the play provider – the person who intimately knows the play space and the history of its use.

**Figure 1: Current Application of the Standards and Inspection and Recommended Changes to their Scope and Application**



There are some signs of progress. In the UK, a more balanced approach to risk and liability in children's play is slowly emerging, spurred by the development of RBA and supported by a limited consensus across the equipment industry, play advocacy groups, play provider representatives, play inspection bodies, child injury prevention agencies and the government's regulatory body for health and safety. While not yet the norm, RBA has made a real difference in some areas of policy and practice in the UK (Ball & Ball-King, 2013). Globally, RBA is generating interest in countries including Canada (Tremblay et al., 2015) and Australia (Play

Australia, 2015). In the latter country, RBA has been referenced in the most recent standards revision (which also saw moves towards less stringent safety standards on some issues). The United Nations Committee on the Rights of the Child (UNCRC) has also stated the need for a balanced approach to play safety in a 2015 General Comment (United Nations Committee on the Rights of the Child, 2013).

Despite these positive developments there remains an urgent need to revisit the content, role and applications of standards. Below, we provide specific recommendations to multiple actors with a stake in children's play.

To play providers:

- Give greater authority to front-line workers who have the sharp end experience.
- Recognize your unique knowledge about and experience of children and adolescents' play behaviours within your provision.
- Revisit your primary goals, such as promoting child development. Consider how your approach to risk management can change to reflect these goals, such as through implementation of site-specific and dynamic RBA.
- Understand the scope of any play equipment inspection. You are likely to know far more about the risks and benefits of play in your setting than an external inspector who has not worked with your children and therefore you cannot avoid taking this responsibility.
- Be aware that the duty of care resides with you and cannot be delegated to some third party.
- Consider pilot play facilities that explore non-standards-based design approaches, underpinned by RBA.
- Engage with insurers, risk managers and the legal system to clarify the legal context and open up dialogue on alternative approaches to play.

To standards setters:

- Ensure that any standard makes clear its limitations (see Figure 1): it can only assess objects and not the all-important interaction of particular communities with objects and environments; it can only, at best, be based on generic risk assessment that leaves open the question of how relevant this is to particular situations; it should not be applied to non-standard items (where RBA should be used instead).
- Have a systematic, evidence-based way of deciding when standards need to be modified, taking into account the wider public health context, to help providers and policy makers appreciate the comparative risks and hence make more effective decisions about how to spend limited resources more effectively.
- Ensure that proposals for changes which have significant cost implications are subjected to rigorous compliance cost assessment.

To inspectors:

- Raise debate within the play inspection community about the need for inspection to distinguish between those elements that require knowledge of the material aspects of

the standard, e.g. head traps, and those that involve subjective judgements that properly fall within the remit of the play provider (the dutyholder), as per Figure 1.

- Be clear with play providers about the importance of them stepping up to the plate and making the value-based judgement calls about the balance between risks and benefits

To injury prevention and public health professionals:

- Ground studies and recommendations in high quality empirical evidence. Resist the temptation to over-interpret results and make sweeping recommendations that are not supported by the findings.
- Take into account the cost implications and side-effects of your recommendations, including the potential opportunity costs in relation to other injury prevention and public health issues.

The mounting evidence regarding the adverse effects of the erosion of children's play opportunities makes it clear that there is a pressing need for multi-sectoral consensus and action to promote a more balanced approach. There is a need to redress the many vested interests and forces that influence children's play opportunities with little or no relation to what is best for the children. We make a call for the various actors to recognize their role and prioritize the needs of child, as laid out in the UNCRC.



## References

- Ball, D. J. (2002). *Playgrounds - risks, benefits and choices. Report No. CRR 2002/426*. London, England. Retrieved from [http://www.hse.gov.uk/research/crr\\_hm/2002/crr02426.htm](http://www.hse.gov.uk/research/crr_hm/2002/crr02426.htm)
- Ball, D. J. (2004). Policy issues and risk-benefit trade-offs of “safer surfacing” for children’s playgrounds. *Accident Analysis and Prevention*, 36(4), 661–670. [http://doi.org/10.1016/S0001-4575\(03\)00088-5](http://doi.org/10.1016/S0001-4575(03)00088-5)
- Ball, D. J., & Ball-King, L. (2013). Safety management and public spaces: Restoring balance. *Risk Analysis*, 33(5), 763–771. <http://doi.org/10.1111/j.1539-6924.2012.01900.x>
- Ball, D. J., Gill, T., & Spiegel, B. (2012). *Managing risk in play provision: Implementation guide*. London: Play England. Retrieved from <http://www.playengland.org.uk/resources/managing-risk-in-play-provision-implementation-guide.aspx>
- Brussoni, M., Gibbons, R., Gray, C., Ishikawa, T., Sandseter, E. B. H., Bienenstock, A., ... Tremblay, M. S. (2015). What is the relationship between risky outdoor play and health in children? A systematic review. *International Journal of Environmental Research and Public Health*, 12(6). <http://doi.org/10.3390/ijerph120606423>
- Burdette, H. L., & Whitaker, R. C. (2005). Resurrecting free play in young children: looking beyond fitness and fatness to attention, affiliation, and affect. *JAMA Pediatrics*, 159(1), 46–50. <http://doi.org/10.1001/archpedi.159.1.46>
- Canadian Standards Association. (2016). Codes & Standards. Retrieved April 27, 2016, from <http://www.csagroup.org/services/codes-and-standards/>
- Casey, T., & Harbottle, H. (2018). *Free to Play: A guide to creating accessible and inclusive public play spaces*. Edinburgh: Inspiring Scotland, Play Scotland, Nancy Ovens Trust.
- Davidson, P. L., Wilson, S. J., Chalmers, D. J., Wilson, B. D., Eager, D., & McIntosh, A. S. (2013). Analysis of energy flow during playground surface impacts. *Journal of Applied Biomechanics*, 29, 628–633.
- Dekker, S. (2015). *Safety differently : human factors for a new era*. Boca Raton: Taylor & Francis.
- Finlay, B. B. (Barton B., & Arrieta, M.-C. (2016). *Let them eat dirt : saving your child from an oversanitized world*. Vancouver: Greystone Books.
- Gill, T. (2007). *No fear: Growing up in a risk averse society*. London: Calouste Gulbenkian Foundation.
- Gill, T. (2018). *Playing it safe? A global white paper on risk, liability and children’s play in public space*. The Hague: Bernard van Leer Foundation.
- Graham, J. D., & Wiener, J. B. (1995). *Risk vs. risk: Tradeoffs in protecting health and the environment*. Cambridge, MA: Harvard University Press.
- Gray, C., Gibbons, R., Larouche, R., Sandseter, E. B. H., Bienenstock, A., Brussoni, M., ... Tremblay, M. S. (2015). What is the relationship between outdoor time and physical activity, sedentary behaviour, and physical fitness in children? A systematic review. *International Journal of Environmental Research and Public Health*, 12(6), 6455–6474. <http://doi.org/10.3390/ijerph120606455>
- Green, J. (1999). From accidents to risk: Public health and preventable injury. *Health, Risk & Society*, 1(1), 25–39. <http://doi.org/10.1080/13698579908407005>

- Herrington, S., & Nicholls, J. (2007). Outdoor play spaces in Canada: The safety dance of standards as policy. *Critical Social Policy*, 27(1), 128–138.  
<http://doi.org/10.1177/0261018307072210>
- Jost, D., Yost, B. L., & Mikus, S. M. (2016). Making room for risk in play environments and play standards. *Landscape Research Record*, 5, 245–260. Retrieved from  
[https://lib.dr.iastate.edu/landscapearchitecture\\_pubs/19](https://lib.dr.iastate.edu/landscapearchitecture_pubs/19)
- King, K., & Ball, D. J. (1989). *A holistic approach to accident and injury prevention in children's playgrounds*. London: London Scientific Services.
- Lupton, D. (1993). Risk as moral danger: The social and political functions of risk discourse in public health. *International Journal of Health Services*, 23(3), 425–435.  
<http://doi.org/10.2190/16AY-E2GC-DFLD-51X2>
- McCurdy, L. E., Winterbottom, K. E., Mehta, S. S., & Roberts, J. R. (2010). Using nature and outdoor activity to improve children's health. *Current Problems in Pediatric and Adolescent Health Care*, 40(5), 102–17. <http://doi.org/10.1016/j.cppeds.2010.02.003>
- Play Australia. (2015). *Getting the balance right*. Melbourne: Play Australia.
- Sherwin, J. C., Reacher, M. H., Keogh, R. H., Khawaja, A. P., Mackey, D. A., & Foster, P. J. (2012). The association between time spent outdoors and myopia in children and adolescents: a systematic review and meta-analysis. *Ophthalmology*, 119(10), 2141–51.  
<http://doi.org/10.1016/j.ophtha.2012.04.020>
- Spiegel, B., Gill, T. R., Harbottle, H., & Ball, D. J. (2014). Children's play space and safety management: Rethinking the role of play equipment standards. *SAGE Open*, 4(1), 2158244014522075. <http://doi.org/10.1177/2158244014522075>
- Tremblay, M. S., Gray, C., Babcock, S., Barnes, J., Bradstreet, C. C., Carr, D., ... Brussoni, M. (2015). Position Statement on Active Outdoor Play. *International Journal of Environmental Research and Public Health*, 12(6), 6475–6505. <http://doi.org/10.3390/ijerph120606475>
- United Nations Committee on the Rights of the Child. (2013). *General comment No. 17 (2013) on the right of the child to rest, leisure, play, recreational activities, cultural life and the arts (art. 31)*. Geneva: United Nations. Retrieved from  
<http://www.refworld.org/docid/51ef9bcc4.html>
- van den Bosch, M., & Bird, W. (Eds.). (2018). *Oxford textbook of nature and public health : the role of nature in improving the health of a population*. Oxford: Oxford University Press.
- Whitebread, D. (2017). Free play and children's mental health. *The Lancet Child & Adolescent Health*, 1(3), 167–169. [http://doi.org/10.1016/S2352-4642\(17\)30092-5](http://doi.org/10.1016/S2352-4642(17)30092-5)